

Drainage Maintenance Report

Project

**Land at Fenay Lane,
Huddersfield**

Project Reference

26-255

Client

Vesta Property Group Ltd

Date

22 September 2026



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1. Introduction

1.1. Terms of Reference

- 1.1.1. Holdgate Consulting has been commissioned by Vesta Property Group Ltd to prepare a Drainage Maintenance Report to accompany the drainage scheme at the proposed new development at the Land at Fenay Lane, Huddersfield.
- 1.1.2. Sustainable Urban Drainage Systems (SuDS) are a sequence of water management practices and facilities designed to drain surface water in a manner that will provide a more sustainable approach than what has been the conventional practice. SuDS are designed to mimic natural drainage flows and typically manage rainfall close to where it falls. Benefits include the effective management of runoff from hard standing surfaces, such as pavements and driveways, by reducing the volume, frequency and flow rate of surface water runoff during extreme storm events. They provide protection and/or enhancement of water quality (reducing pollution from runoff), are sympathetic to the environment and the needs of the local community.
- 1.1.3. The purpose of this management plan is to demonstrate how SuDS, which have been implemented at this particular development and will be maintained in compliance with various requirements and best practice guidance, including but not limited to, the National Planning Policy Framework (NPPF) and SuDS Manual (CIRIA, 2015).
- 1.1.4. The management plan aims to:
 - Summarise the various SuDS features used within the site;
 - Establish who is responsible for the maintenance of the SuDS components.
 - Set out how to maintain the incorporated SuDS components following construction.
 - Ensure that all those involved in the maintenance and operation of the SuDS understand their functionality and maintenance requirements in terms of supporting long-term performance.
- 1.1.5. Maintenance inspections should be recorded in Appendix B of this report and ensure that the document stays up to date.



1.2. Site Description

- 1.2.1. Site it proposing to construct six new residential properties, associated parking with soft and hard landscaping within the site boundary.**
- 1.2.2. Plan Illustrating the proposed drainage to be maintained are shown in the attached drawing in Appendix C.**
- 1.2.3. Stormwater runoff generated from site (roofs and hard standings) will drain via gravity south of the site and eventually discharge to the public sewer. An attenuation tank is positioned near the site boundary to provide attenuation during critical storm events. Additionally, a flow control chamber to limit discharge at 5.0 l/s is positioned downstream from the attenuation tank to discharge into the adjacent watercourse.**

2. SuDS Management and Maintenance Regime

2.1. General

- 2.1.1. The occupier(s) or an appointed management company will be responsible for the maintenance of drainage serving the building. They must fully understand their responsibilities outlined in this plan and be aware of any legally binding maintenance agreement. Initially the management of the site will be undertaken by Vesta Property Group Ltd before the site is handed over to the site owner.
- 2.1.2. Only trained personnel will be permitted to undertake maintenance of SuDS features. This work must be carried out in accordance with the Confined Space Regulations. To facilitate this maintenance, SuDS have been located in public open space, where possible, or where they are reasonably accessible.
- 2.1.3. Tables outlining the maintenance activities that should be undertaken for each SuDS feature, outlined in the following sections, in accordance with the SuDS Manual, CIRIA, 2015. These tables must be reviewed by the owners or an appointed responsible representative.

2.2. Stormwater Tank

- 2.2.1. Tanks are a commonly used as a cost-effective SuDS technique by providing upstream storage to attenuate storm water runoff and some settling of particulate pollutants.
- 2.2.2. Regular inspection and maintenance are required to ensure the long-term effectiveness of the tank.
- 2.2.3. Access to maintain the stormwater attenuation tank to be from the adjacent field via a shared access route with stormwater attenuation tank positioned outside of private land ownership.
- 2.2.4. A checklist for the maintenance of the stormwater tanks installed at the site, to be used by the party responsible for their maintenance, is provided in accordance with the 2015 SuDS Manual below:

Table 2.2 – Stormwater Tank (CIRIA,. 2020)

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

- 2.2.5. The surface water attenuation tank will be maintained by the respective house owners and or an appointed management company.

2.3. Hydro brake

- 2.3.1. A hydro-brake is a flow control manhole, which restricts the velocity of water whereby the water enters through the inlet pipe with enough energy to create a vortex in the chamber. The vortex then controls the flow to the specified discharge rate. The main parameters that effect the hydro-brake specification is the design head (m) and the specified discharge rate (l/s).
- 2.3.2. The hydro-brake proposed for this development is of the following characteristics: 1.2m head and 5.0 l/s.
- 2.3.3. Regular inspection and maintenance will be required to ensure the long-term effectiveness of the hydro-brake.
- 2.3.4. Hydro International have provided the following statement in terms of maintenance of the hydro-break:
- 2.3.5. 'Normally, little maintenance is required as there are no moving parts within the Flow Control. Experience has shown that if blockages occur, they do so at the intake, and the cause on such occasions has been due to a lack of attention to engineering detail such as approach velocities being too low, inadequate benching, or the use of units below the minimum recommended size. The Flow Control (where applicable) is fitted with a pivoting bypass door, which allows the manhole chamber to be drained down should blockage occur. The smaller conical units, below the minimum recommended size, are also supplied with rodding facilities or vortex suppressor pipes as standard.
- 2.3.6. Following installation of the Flow Control it is vitally important that any extraneous material i.e. building materials are removed from the unit and the chamber. After the system is made live, and assuming that the chamber design is satisfactory, it is recommended that each unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required.
- 2.3.7. Access to maintain the hydro-brake to be from the adjacent shared shared access route with hydro-brake and attenuation inspection turret positioned outside of private land ownership. This will ensure all year-round access is provided for maintenance.
- 2.3.8. The surface water attenuation tank will be maintained by the respective owners and or an appointed management company.

2.4. Swales

- 2.4.1. Regular inspection and maintenance will be required to ensure the long-term effectiveness of the swale. Maintenance is typically straightforward and can generally be combined with routine landscape maintenance of the site. The key requirements are maintaining a healthy, dense grass cover at the design height, keeping inlets and outlets free from blockage, and preventing the build-up of silt and litter.
- 2.4.2. Grass within the swale should be maintained at a height of between 75 mm and 150 mm to maximise filtration and to prevent flattening of the vegetation during high flows. Grass cuttings should be collected and removed from the swale, and not left in the channel, to avoid nutrient release and blockage of downstream features.
- 2.4.3. During the construction phase, the swale should be protected from construction runoff and silt-laden water. Should silt from construction activities enter the swale, it must be removed and the vegetation reinstated prior to the system being adopted by the party responsible for maintenance.
- 2.4.4. Access to maintain the swale to be from the shared access route, with the swale positioned outside of private land ownership. This will ensure all year-round access is provided for maintenance.

2.4.5. A checklist for the maintenance of swales is provided in accordance of CIRIA 2015:

Table 2.4 – Swale Maintenance.

Swale Maintenance Schedule CIRIA (2015)	
Regular maintenance	Frequency
Remove litter and debris; cut grass to 75–150 mm and manage other vegetation. Inspect inlets, outlets, overflows and swale surface for blockages, ponding, compaction and silt build-up	Monthly during the growing season, or as required
Occasional tasks	Frequency
Reseed areas of poor vegetation growth	As required, or where bare soil exceeds 10% of the swale area
Remedial work	Frequency
Repair erosion, relevel surfaces, scarify compacted topsoil, and remove sediment, oils or petrol residues.	As required.

2.5. Standard Drainage Components

- 2.5.1. Standard drainage components including pipes, bends junctions, inspection chambers and gullies feature in most drainage systems to a greater or lesser degree. These components invariably feature some silt trapping (sumps and traps) and access provision for maintenance purposes.
- 2.5.2. Regular inspection and maintenance are required to ensure the long-term effectiveness of these components.

2.5.3. A checklist for the maintenance of private drainage components installed at the site, to be used by the party responsible for their maintenance, is provided in accordance with best practice principles:

Table 2.5 – Private Drainage Components.

Private Drainage System (Curtilage)	
Regular maintenance	Frequency
To be maintained by the end user/maintenance company. Visually inspect covers to ensure they are kept clear of leaves, debris etc. Lift covers of drainage to inspect chambers for debris and build-up of silts.	Annually. No triggers other than maintenance to be carried out on a regular schedule.
Occasional tasks	Frequency
Remove leaves and debris from covers. Remove debris from inspection chambers to ensure outlets are kept clear of obstruction and ensure adequate drainage.	As required. Indicator of problem/trigger for maintenance when surcharging or flooding of drains occurs or gutters and chambers full of debris and leaves etc.
Remedial work	Frequency
Should drains be heavily blocked or damaged contact drainage maintenance company for unblocking / repair works.	As required. Indicator of problem/trigger for maintenance when drainage not functioning and unblocking pipes and chambers etc not effective.



3. Contact details and record of maintenance

Contact Details of Individual/Individuals Responsible for This Plan

In the event of concern over any matter related to SuDS, please contact:

Name:.....

Address:.....

.....

Phone:.....

Email:.....

Record of Maintenance and Photographic Evidence

- 3.1.1. Please provide a record of all inspections (including all photographic evidence) in Appendix B

APPENDIX A

MAINTENANCE DETAILS AND PRODUCT SPECIFICATIONS

General design details

The Permavoid range of products can be used individually or linked together to provide unique and flexible water management solutions.

The following typical design details highlight a range of solutions available. These drawings are available on the Poly pipe website at www.polypipe.com/toolbox. Individual projects may require tailored solutions that are not detailed. For more information please contact our Technical Team on +44 (0) 1509 615100.

Typical permeable pavements

Figure 8.1.1: Sub-base infiltration detail (drawing no. PV_SD_IN_PP_001)

(For illustration purposes, we have shown a permeable block paving system. For Permeable asphalt a 40mm surface course and 80mm binder course are recommended)

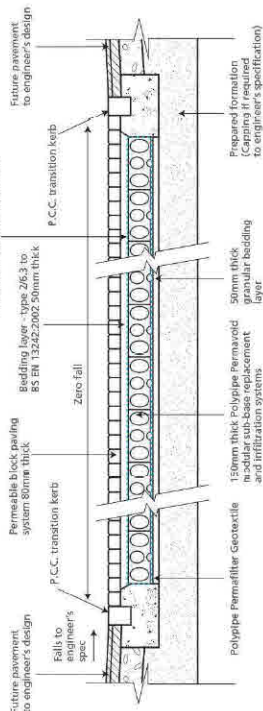
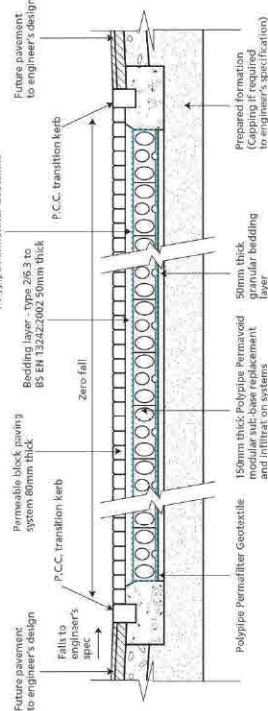


Figure 8.1.2: Permeable pavement sub-base attenuation detail (drawing no. PV_SD_AT_PP_001)

(For illustration purposes, we have shown a permeable block paving system. For Permeable asphalt a 40mm surface course and 80mm binder course are recommended)



40mm Permeable asphalt

CAD drawings are also available on the website tool box

Maintenance

Like any conventional drainage system, sustainable drainage systems (SuDS) should be inspected regularly and correctly maintained to ensure optimum performance.

Maintenance plan

This should be initiated by the drafting of routine maintenance plans to suit the site installation. A pre-handover inspection should be carried out and the Permavoid system cleaned prior to final handover.

Routine inspection and maintenance should include:

- Inspection of systems
- Removal of silts
- Decanting of oils and hydrocarbons
- Channel jetting
- Water sampling and testing at point of discharge (if required)

Excess silt/debris held within Permachannel and gullies should be cleared manually or with a vacuum tank. We do not recommend pressure led cleaning.



Routine maintenance

Permachannel

- 3 monthly inspections of channels for signs of blockage and oil spillage
 - Remove litter and blockages as required
 - Every 12 months inspect all chambers for silt and oil build up
 - Every 12 months sweep external surfaces
 - Remove silt as required but at least every year
- Records of inspections and maintenance undertaken should be kept by the client

PermaVoid Technical Manual

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APPENDIX B

RECORD OF MAINTENANCE

(SAMPLE PROFORMA ENCLOSED)

DRAINAGE MAINTENANCE LOG

FACILITY NAME:	LOCATION:
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FACILITY NAME:	LOCATION:
-----------------------	------------------

[illegible]



**HOLDGATE
CONSULTING**

Ref: 26-255

Land at Fenay Lane, Huddersfield

Drainage Maintenance Report

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APPENDIX C

PLAN DRAINAGE

Private Drainage

1. This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specification and any structural, geotechnical or other specialist documents provided.
2. All lateral connections for house drainage shall be 100mm unless stated otherwise and must extend a minimum of 500mm behind the back of the footpath.
3. All pipes to be vitrified clay or UPVC and shall be 100mmØ laid to a fall of 1:80 unless noted otherwise or indicated by size and invert levels. All connections when laid shall be plugged, protected as necessary and marked with a stake for future use.
4. Building drainage shall comply with BS 8301 1985, BS EN 752 and Building Regulations Part H. Inspection chambers located within garages to have double seal bolt down covers.
5. Gully top and manhole cover specification to be in accordance with BS EN 124 and located in accordance with the intended use and loading classification as described within groups 1-6:
6. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.
7. Cover and invert levels are indicative and may vary on site. In any case the following minimum cover to depth of cover to the crown of pipes without protection shall be as follows:
- 7.1. Domestic gardens and pathways without any possibility of vehicular access - 0.35m
- 7.2. Domestic driveways, parking areas and yards with height restrictions to prevent entry by vehicles with a gross weight in excess of 7.5 tonnes - 0.5m
- 7.3. Domestic driveways, parking areas and narrow streets without footways (e.g. Mews developments) with limited access for vehicles with a gross weight in excess of 7.5 tonnes - 0.9m
- 7.4. Agricultural land and public open space - 0.9m
- 7.5. Other highways and parking areas with

- unrestricted access to vehicles with a gross weight in excess of 7.5 tonnes - 1.2m
- Note:** any protection required where drainage does not comply with a-e above shall be as follows:-
- 7.6. Vitrified clay pipes - provide a 100 mm min. thick concrete bed and surround (instead of class 'S' bedding) and a 13 mm thick compressible filler at each joint.
- 7.7. UPVC pipes - provide a concrete bridging (in addition to class 'S' bedding) in accordance with appendix A15, Building Regulations part 'H'.
- Note:** in-situ concrete used in connection with a) and b) above shall be standard mix GEN3 in accordance with BS 5328.
8. Drainage runs should be laid at a minimum of 5.0 metres from the rear of properties where practicable to allow for future extensions
9. Where pipes pass under buildings, unless beam & block floors are used, they are to be surrounded in concrete.
10. All branch drains, or connections, are to discharge to the collectors obliquely, and in the direction of the main flow.
11. Finished Floor Levels (FFL's), assumed to be typically a minimum of 150mm above finished ground level outside. refer to architects drawing for details.
12. All new private shallow 225mm diameter surface water and foul inspection chambers and rodding eyes shown without cover levels (CL) shall be assumed to be at external ground level, and invert levels (IL) are to be typically between 450 and 600mm below CL, subject to the length of the internal house connections.
13. All low spots on hardstanding areas to have double gullies.
14. Prior to topsoiling of rear gardens, the gardens should be reworked, rotavated or disconnected to a depth of 600mm. Once this is carried **NO PLANT**

- to access these areas,** any further consolidation of subsoil to be reworked as necessary. Before reworking or rotavating the Contractor is to mark all drain runs in the area.
- Pipe bedding to be Class 'S' Bedding (100mm granular bed and surround).
15. Excavations for manholes, pipe runs etc located within a 45 degree load distribution splay from any adjoining existing foundations, are to be adequately supported for the duration of the works and building drainage protected.
17. Foundations adjacent to pipe runs or manholes are to have their formation level set above the invert level no higher than the equivalent of the horizontal distance between the pipe/excavation trench and the foundation, minus 500 mm.
18. Where excavations for pipe runs are parallel and in close proximity to each other and/or other service trenches, the contractor shall ensure that adequate safety measures, including temporary shoring, are provided in line with current Health & Safety Legislation and good practice. Particular attention is to be paid to adjacent trenches of differing invert levels.
19. All existing drainage found on site during the works shall be investigated, its operational status confirmed, and the following applied:-
- 19.1. Inoperative drainage shall be cut back and pipe runs filled with concrete gull.
- 19.2. 'Live' drainage shall be temporarily re-routed to allow the new drainage to be constructed.
20. Where existing drainage is to be re-used including road, building and external drainage systems, the contractor shall ensure that all chambers and drainage runs are cleaned, de-silted and made good.
21. Covers to existing chambers to be re-used shall be replaced where necessary to suit proposed development loading class, see note 5. Chamber covers shall also be adjusted to suit final ground levels as necessary.
22. Where necessary, existing chambers shall be re-benched to suit new pipework arrangement.

Key

Site Boundary

Storm Water Drainage Legend
(Dimensions are approx. internal sizes).

- Existing Storm Water Drain
- New Surface Water Manhole 1200mm dia. concrete up to 3000mm deep. 300mm catchpit where CP label shown.
- New Surface Water Inspection Chamber 450mm dia. polypropylene up to 3000mm deep. 300mm catchpit where CP label shown.
- New Private Surface Water PVC Pipe 100Ø unless otherwise noted.
- Linear ACO drain with silt bucket
- New deep trapped road gully

Foul Water Drainage Legend
(Dimensions are approx. internal sizes).

- New Private Foul Water PVC Pipe 100Ø unless otherwise noted.
- New Foul Water Inspection Chamber 450mm dia. polypropylene up to 3000mm deep. 300mm catchpit where CP label shown.

Notes:

Site layout provided by Wildblood Macdonald ref. WM Stage 3 Proposed site plan

Site levels based on topographic survey by Shire Surveys ref. 2469 3D Model

Where shallow inspection chambers are proposed concrete encasement is required.

RWP and SVP positions are indicative and must be checked against architectural drawings prior to construction.

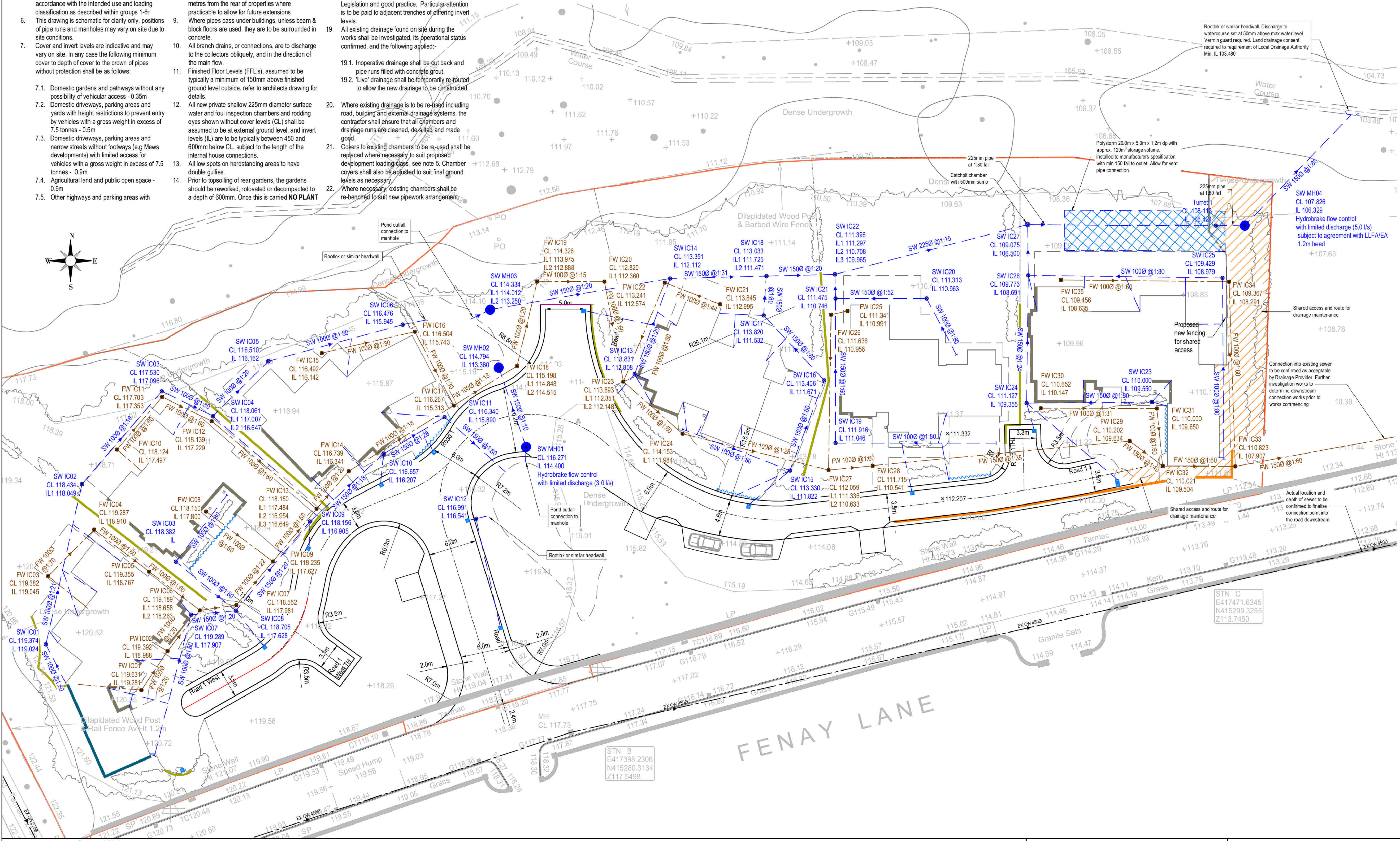
Refer to drawing 26-255 D02 Private Drainage Construction Details

Refer to drawing 26-255 D03 Manhole Schedule

Engineer to be consulted where discrepancies arise between drainage design and site arrangements.

Disclaimer

The information contained in this drawing has been compiled during the course of the design and is offered to assist the contractor in the planning and construction of the work. much of the information has been compiled from data received from utility companies and other bodies and has not been checked. there could be errors in the data received or in the interpretation of the data when transferring it to this drawing. up to date utilities drawings must be obtained by the contractor from the utilities supplier.



General Notes

1. Do not scale from this drawing.
2. Only figured dimensions are to be relied upon.
3. All dimensions in millimetres unless otherwise noted. All levels in metres unless noted otherwise.
4. This drawing is to be read in conjunction with relevant architectural, engineering and specialist drawings and specifications.
5. Any discrepancies noted on site are to be reported to the engineer immediately.
6. Where this drawing has been issued in electronic format, Holdgate Consulting do not accept responsibility for any inaccuracies in the

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Project Title
Land at Fenay Lane, Huddersfield

Drawing Title
Drainage Plan

Status
Comment / Review

Job No.	26-255	Scale @ A1	1:125
Drawing No.	D01	Revision	P02

P02	21/09/2026	Updated Drainage and maintenance access	TE /NM /NM
P01	23/06/2026	First issue	EH /NM /NM
Rev	Date	Description	Draw/Chk/App'd